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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,845	11/01/2001	Isidore I. Lamke	LUMA 8170US	8828
1688	7590	03/28/2003	EXAMINER	
POLSTER, LIEDER, WOODRUFF & LUCCHESI 763 SOUTH NEW BALLAS ROAD ST. LOUIS, MO 63141-8750			TON, ANABEL	
		ART UNIT	PAPER NUMBER	
		2875		
DATE MAILED: 03/28/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application	Applicant(s)
	10/003,845	LAMKE ET AL.
	Examiner Anabel M Ton	Art Unit 2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 01 November 2001.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-20 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449)/Paper No(s) 5

4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roney et al (5,632,551) and further in view of Vilanilam et al (5,821,695).

3. Roney discloses the claimed invention except for a mold in place lens material encapsulating the circuit board and light emitting diodes to define a solid body formed of a predetermined shape. Vilanilam et al discloses an LED lighting device wherein an encapsulating material fills the spaces within the chamber holding the LED and the respective circuit board to provide an impact resistant light housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement a material encapsulating a circuit board and light emitting diodes to define a solid body of a predetermined shape within the LED lighting device of Roney, as taught by the lighting device of Vilanilam et al, so as to provide for an impact resistant lighting device and to protect the internal components of the lighting device. Furthermore, it has been held to be within the general skill of a worker in the art to select a known material (in this case the transparent material filling the lighting device to promote impact resistance of the lighting device) on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416)

4. The circuit board defines a plurality of apertures. (Roney fig 3 and Vilanilam figs. 2 and 7)

- The LEDs are positioned and arranged in rows and columns. (Roney)
- With regards to at least one of the rows of LEDs emits light having a color different from at least another row of LEDs, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have rows of LED's having different colors since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

(See cited prior art Deese)

- The lens material has at least one opening formed in it for permitting attachment of the lamp assembly to another structure (Vilanilam fig 1);
- With regards to the lamp assembly withstands a force of at least 30 ft.lbs.per square inch of force without damage, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have such an estimated amount strength for the lamp assembly since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.
- The light emitting unit comprises a plurality of light emitting units comprising light emitting diodes

Art Unit: 2875

- With regards to the process of assembling the light emitting unit: "the circuit board and light emitting unit is submerged within the moldable lens material before hardening and the moldable lens material allowed to harden, such that the circuit board and light emitting unit are encased within the moldable lens material in the substantial absence of air", the presence of process limitations on product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. *In re Stephens* 145 USPQ 656 (CCPA 1965).
- With regards to the circuit board has a reflector or a plurality of reflectors attached thereto, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the circuit board with a reflector since such a modification is old and well known in the art for the purpose of providing the circuit board and lighting arrangement thereon with a more uniform light intensity through out the illuminated surface. (Please see cited prior art *Lodhie*)

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Lodhie* and *Deese*.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anabel M Ton whose telephone number is (703) 305-1084. The examiner can normally be reached on 08:00-16:30.

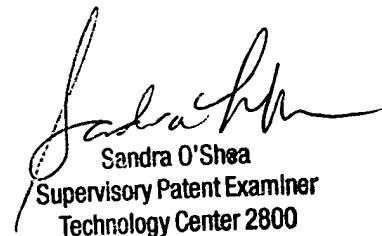
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone

numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Anabel M Ton  
Examiner  
Art Unit 2875

AMT  
March 24, 2003



Sandra O'Shea  
Supervisory Patent Examiner  
Technology Center 2800

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roney et al (5,632,551) and further in view of Vilanilam et al (5,821,695).

3. Roney discloses the claimed invention except for a mold in place lens material encapsulating the circuit board and light emitting diodes to define a solid body formed of a predetermined shape. Vilanilam et al discloses an LED lighting device wherein an encapsulating material fills the spaces within the chamber holding the LED and the respective circuit board. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement a material encapsulating a circuit board and light emitting diodes to define a solid body of a predetermined shape within an LED lighting device since as taught by Vilanilam et al so as to provide for an impact resistant lighting device among other benefits as taught by Vilanilam et al.

- The circuit board defines a plurality of apertures. (Roney fig 3 and Vilanilam figs. 2 and 7)
- The LEDs are positioned and arranged in rows and columns. (Roney)
- With regards to at least one of the rows of LEDs emits light having a color different from at least another row of LEDs, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to have rows of LED's having different colors since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. (See cited prior art Deese)

- The lens material has at least one opening formed in it for permitting attachment of the lamp assembly to another structure (Vilanilam fig 1);
- With regards to the lamp assembly withstands a force of at least 30 ft.lbs.per square inch of force without damage, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have such an estimated amount strength for the lamp assembly since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.
- The light emitting unit comprises a plurality of light emitting units comprising light emitting diodes
- With regards to the process of assembling the light emitting unit: "the circuit board and light emitting unit is submerged within the moldable lens material before hardening and the moldable lens material allowed to harden, such that the circuit board and light emitting unit are encased within the moldable lens material in the substantial absence of air", the presence of process limitations on product claims, which product does not otherwise patentably distinguish over prior art,

cannot impart patentability to the product. *In re Stephens* 145 USPQ 656 (CCPA 1965).

- With regards to the circuit board has a reflector or a plurality of reflectors attached thereto, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the circuit board with a reflector since such a modification is old and well known in the art for the purpose of providing the circuit board and lighting arrangement thereon with a more uniform light intensity through out the illuminated surface. (Please see cited prior art Lohdie)

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lohdie and Deese.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anabel M Ton whose telephone number is (703) 305-1084. The examiner can normally be reached on 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

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Application/Control Number: 10/003,845  
Art Unit: 2875

Page 5

Anabel M Ton  
Examiner  
Art Unit 2875

AMT  
March 23, 2003